

Datasheet: MCA949A488T

Description:	RAT ANTI MOUSE CD205:Alexa Fluor® 488
Specificity:	CD205
Other names:	DEC205
Format:	ALEXA FLUOR® 488
Product Type:	Monoclonal Antibody
Clone:	NLDC-145
Isotype:	lgG2a
Quantity:	25 TESTS/0.25ml

### **Product Details**

## **Applications**

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	-			Neat - 1/10

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

Target Species	Mouse			
Product Form	Purified IgG conjugate	ed to Alexa Fluor® 48	8 - liquid	
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nn	n)
	Alexa Fluor®488	495	519	
Preparation	Purified IgG prepared supernatant	by affinity chromatog	raphy on Protein G	from tissue cu
Buffer Solution	Phosphate buffered sa	aline		
Preservative	0.09% Sodium Azide			
Stabilisers	1% Bovine Serum	Albumin		
Approx. Protein Concentrations	IgG concentration 0.0	5 mg/ml		

Immunogen	Mouse lymph node stroma.
External Database Links	UniProt:  Q60767 Related reagents
	Entrez Gene:  17076 Ly75 Related reagents
Synonyms	Cd205
RRID	AB_1101300
Specificity	Rat anti Mouse CD205, clone NLDC-145 recognizes DEC-205, a ~205 kDa integral membrane glycoprotein expressed by mouse dendritic cells and thymic epithelial cells. It is absent in bone marrow cells, all blood cells and freshly isolated macrophages from the peritoneal cavity. A subpopulation of the latter becomes positive in mice previously stimulated with thioglycollate. It is also absent on follicular dendritic cells of B cell follicles.
	The antigen is found on la positive interdigitating cells in T cell areas of all secondary lymphoid organs. It is also present on veiled cells. In non-lymphoid organs, the antigen is only found on Langerhans cells of the skin but cross reactions with la positive thymic epithelial cells and intestinal villus epithelial cells are also observed.
	DEC-205 is expressed at the cell surface of unfixed cells but can also be found in the cytoplasm of fixed cells.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
	The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity Fc receptors. This may be reduced by using SeroBlock FcR ( <u>BUF041A/B</u> ).
References	<ol> <li>Barclay, A.N. &amp; Ward, H.A. (1982) Purification and chemical characterisation of membrane glycoproteins from rat thymocytes and brain, recognised by monoclonal antibody MRC OX 2. Eur J Biochem. 129 (2): 447-58.</li> <li>Jiang, W. et al. (1995) The receptor DEC-205 expressed by dendritic cells and thymic epithelial cells is involved in antigen processing. Nature. 375 (6527): 151-5.</li> <li>Swiggard, W.J. et al. (1995) DEC-205, a 205-kDa protein abundant on mouse dendritic cells and thymic epithelium that is detected by the monoclonal antibody NLDC-145: purification, characterization, and N-terminal amino acid sequence. Cell Immunol. 165 (2): 302-11.</li> <li>Inaba, K. et al. (1995) Tissue distribution of the DEC-205 protein that is detected by the monoclonal antibody NLDC-145. I. Expression on dendritic cells and other subsets of mouse leukocytes. Cell Immunol. 163 (1): 148-56.</li> <li>Wolf AJ et al. (2007) Mycobacterium tuberculosis infects dendritic cells with high frequency and impairs their function in vivo. J Immunol. 179 (4): 2509-19.</li> </ol>

identifies BST-2 as a target for antibody-based therapy. <u>Blood. 115: 736-44.</u>

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- 8. Zhang, S.S. *et al.* (2008) Plasminogen activator Pla of *Yersinia pestis* utilizes murine DEC-205 (CD205) as a receptor to promote dissemination. J Biol Chem. 283: 31511-21.
- 9. Mohan, J. *et al.* (2005) Skin-derived dendritic cells acquire and degrade the scrapie agent following *in vitro* exposure. <u>Immunology. 116: 122-33.</u>
- 10. Jin, X. *et al.* (2014) Long-Term Persistence of Functional Thymic Epithelial Progenitor Cells *In Vivo* under Conditions of Low FOXN1 Expression. <u>PLoS One. 9: e114842.</u>
- 11. Damian-Morales, G. *et al.* (2016) The HPV16 E7 Oncoprotein Disrupts Dendritic Cell Function and Induces the Systemic Expansion of CD11b(+)Gr1(+) Cells in a Transgenic Mouse Model. <u>Biomed Res Int. 2016: 8091353.</u>
- 12. Wu Y *et al.* (2016) Effect of Aging on Periodontal Inflammation, Microbial Colonization, and Disease Susceptibility. J Dent Res. 95 (4): 460-6.
- 13. Kobayashi, A. *et al.* (2015) AG490, a Jak2 inhibitor, suppressed the progression of murine ovarian cancer. Eur J Pharmacol. 766: 63-75.
- 14. Xiao, W. et al. (2015) FOXO1 deletion reduces dendritic cell function and enhances susceptibility to periodontitis. <u>Am J Pathol. 185 (4): 1085-93.</u>
- 15. Charmoy, M. *et al.* (2010) Neutrophil-derived CCL3 is essential for the rapid recruitment of dendritic cells to the site of *Leishmania major* inoculation in resistant mice. PLoS Pathog. 6 (2): e1000755.
- 16. Suárez-Álvarez, R.O. *et al.* (2019) Dimorphism and Dissemination of *Histoplasma capsulatum* in the Upper Respiratory Tract after Intranasal Infection of Bats and Mice with Mycelial Propagules. <u>Am J Trop Med Hyg. 101 (3): 716-723.</u>

### **Storage**

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

### Guarantee

12 months from date of despatch

### **Acknowledgements**

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# Health And Safety Information

Material Safety Datasheet documentation #10041 available at: 10041: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf</a>

Regulatory

For research purposes only

# **Related Products**

# **Recommended Negative Controls**

RAT IgG2a NEGATIVE CONTROL:Alexa Fluor® 488 (MCA1212A488)

# **Recommended Useful Reagents**

MOUSE SEROBLOCK FcR (BUF041A) MOUSE SEROBLOCK FcR (BUF041B)

North & South Tel: +1 800 265 7376 America

Worldwide

Tel: +44 (0)1865 852 700

Europe

Tel: +49 (0) 89 8090 95 21

Fax: +1 919 878 3751

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